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The role of foreign direct investment (FDI) in developing countries
Evidence from growth in Sub-Sharan Africa

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The role of Foreign Direct Investment (FDI) in Developing Countries.

Evidence from Growth in SSA Countries

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Abstract

This study investigates the role of foreign direct investment on growth in developing countries. Theories on FDI channels have been explored but more emphasis has been put on finance to examine how it links FDI to growth of host economy. It has been found that well-organized financial system attracts FDI and permits it to contribute to local capital accumulation and investment while poor system creates frictions towards economic growth. For SSA, the attraction of FDI should be treated with care to control for FDI negative externalities amplification since the financial system in this region is fragile vis-à-vis foreign presence.

Key words: Foreign Direct Investment.

CHAPTER I.0. Introduction

International capital flows have been on a roller-coaster ride for the past few decades before they sharply dropped due to the onset of the global financial crisis in 2008, for both advanced and emerging economies (Bluedorn et al, 2013). Multinational Enterprises (MNEs) to overcome the problem of capital market imperfections they redirect their investments by seeking arbitrage in cross-country differences in production costs (Carluccio & Fally, 2012). An increasing share of flows directed towards recipient countries largely took the form of foreign direct investment (FDI) rather than portfolio or equity flows (Calvo et al, 1996).

Developing and emerging market economies' increasing participation in FDI inflows over the past decades reflects hope and positive attitude receiving countries attribute to FDI to have impact on domestic growth through a range of channels including financial market development (Foley & Manova, 2015). However, a relationship between FDI and economic growth tends to be conditional on host country characteristics such as the level of human capital, trade openness, income level, financial development and institutional development (de Mello 1999).

Nevertheless, There is consensus that inward FDI brings with it a range of benefits toward host-country economy i.e. through knowledge spillovers and linkages between foreign and domestic firms FDI could foster technology transfer, improve managerial and employee skills, and boost investment incentives and productivity in upstream and downstream sectors. FDI to push its benefits depends on many factors including local financial market development (Alfaro et al., 2010). In this context, we examine the effect of the complementarity between domestic financial market and inwards FDI on growth of host economy. However, we completely exclude the effect of any other growth determinants instead of finance. This effect is explained at both country and firm level to elucidate FDI-growth linkages.

The study comprises two chapters. Chapter one explains theoretical channels of Foreign Direct Investment, different channels are listed and explained and highlight the manners through which FDI spillovers impact productivity growth. It also explains empirical evidences on FDI-growth in developed countries, developing as well as Sub-Saharan Africa. Chapter two explains the link between FDI-growth and finance. This link is studied on firm-level as well as country level and finally study draws conclusion.

CHAPTER I.1. Theoretical channels of Foreign Direct Investment

This section discusses the theoretical perspective of the spillover channels from FDI in order to set out a framework for the analysis. It also highlights growth differential on firm as well as country-level vis-à-vis the interaction between FDI and host country conditions.

FDI-induced intra-industry productivity spillover effects are understood to occur via a range of transmission channels through which the domestic firms' productivity gets impacted. In this context therefore, we document a list of some of these channels− Demonstration, labor mobility, and competition, production linkages−forward and backwards, institutional and financial development.

Demena and Murshed (2018) distinguish between processes of such channels. The demonstration of new products and processes provided by FDI to the host market is assumed to speed up access and utilization of technologies by domestic firms. Through demonstration FDI spillovers are transmitted via imitation and trained local workers by foreign affiliates. The copied technology and skills empowerment altogether provide to labor force a competitive capacity to produce and induce higher return on factor productivity.

The worker mobility channel works through pecuniary or technological spillovers. On one side, local experienced workers prefer to move onto foreign affiliates expecting higher wage as opposed to local firms[1].On the other, the potential technological spillovers are linked with the knowledge and experience embedded in the human capital of local workers working for or being trained by foreign affiliates and these local workers are expected to move to setup their own business and thereby enhance the productivity of these firms.

The competition channel is postulated to emerge through the market mechanism. Competition in the local market can be interpreted as an incentive for domestic firms to use existing technology and resources more efficiently or even adopt new technology, generating positive effect on total

[1] Lipsey (2004). Foreign affiliates pay higher wages to attract local experienced labor force – worker' experience and good working conditions provide an environment to produce more.

factor productivity. Furthermore, if domestic firms are unable to compete, foreign firms may push them out of the local market, hence the crowding out effect[2].

Production linkages between foreign affiliates and domestic firms is also the most important way to tap FDI benefits. Such linkages can take several forms: forward or horizontal and backward or vertical[3]. With horizontal Linkages, FDI spillovers are transmitted to local firms to improve their efficiency by coping foreign technology and competing with them. However, these channels may rarely work effectively because if local and foreign firms compete in the same industry, with high cost of technology transfer and low levels of product market competition (e.g. in the natural resources sector), the local firms win the competition because of higher cost of technology transfer, multinational enterprises -MNEs will transfer less technology to their affiliates. This weakens the competitive position of multinational affiliates and improves the competitive position of the local firm[4] (Liu et al., 2008).

Nevertheless, in vertical linkages channel, foreign affiliates are linked to domestic firms through inputs supply. However, MNEs may directly transfer knowledge to their local suppliers, urge them to upgrade their production management and technology and allow them to reap economies of scale. Thus, positive productivity spillovers are expected from backward linkages (Smarzynska, 2002, Alfaro, 2016).

In his study de Mello (1999) noticed that FDI spillovers are not automatic for host country. There is a set of prerequisites for them to hold, such as minimum human and institutional developments are necessary to absorb the foreign effects. Moreover, in related study Busse and Groizard (2005) prove that countries may only benefit from inflows FDI if they have appropriate local government regulations and institutions in place. Therefore, excessive regulations are likely to restrict FDI- growth. For example, if starting and closing down a business are hindered by extensive and costly government regulations, involving many bureaucratic procedures demanding entrepreneurs' time and resources, capital flows are prevented from being reallocated to the most productive sectors.

Thus, financial system is also a key channel driving FDI to impact domestic economic growth. Capital market in emerging economies is poor and requires external finance – MNEs to bring more capital and boost domestic investment in sense of natural resources exploitation. Literature suggests that local firms have high access to resources than MNEs. In resource-based industries foreign firms prefer shared ownership in order to gain access to raw material sources (Asiedu &

[2] Kosová (2010) gives more details on firms' competition and foreign firms crowd out effect on domestic firms.

[3] UNCTAD report (2001) gives more details on FDI-productivity linkage effects in host economy.

[4] Motchenkova and Ghebrihiwet (2017) give details on relationship between FDI, foreign ownership restrictions, and technology transfer in the resources sector.

Esfahani, 2001). However, the more technologically advanced a foreign investor is, the more likely it is to choose direct entry over a joint venture and is less likely to form a joint venture. In fact, in equilibrium it is never the case that the technologically advanced firm forms a Joint Venture (Javorcik & Saggi, 2010).

Theory suggests that FDI plays a crucial role in financing development, both directly, as an external source of capital, and indirectly through its impact on domestic capital formation. FDI inwards stimulates total investment−measured as the ratio of gross fixed capital formation to GDP. Increase in capital accumulation, at least up to the optimal level of capital per worker gives raise to productivity and aggregate output on firm as well as country's level (Amighini et al., 2017, Prasad et al., 2007). The domestic financial market development may work as FDI-Growth factor. A well-developed financial markets induce attraction and channels FDI spillovers to the domestic economy because the development of loal financial arrangements provoke the economic growth by lowering the costs of conducting transactions ensuring capital is allocated to the projects that yield the highest returns (Kose et al, 2009, Lensink & Hermes, 2003, and Alfaro et al., 2009). Therefore poor financial market undoubtedly constrains firms' productivity growth[5].

I.2. Empirical evidence on FDI-Growth

Under this section, we highlight empirical evidences on how foreign presence impacts the domestic economic growth in all developed, developing and Sub-Saharan African countries.

I.2.1. FDI- growth in developed countries.

As noticed in OECD report (2019) the global FDI flows[6] in 2018 decreased by 27% compared to 2017, to USD 1 097 billion. This represents 1.3% of global GDP, the lowest level since 1999. The drop was largely due to the 2017 US tax reform. Inflows to the OECD area decreased by 23%, largely driven by disinvestments from Ireland and Switzerland and reduced flows to the United Kingdom, the United States and Germany.

The figure below shows global FDI flows from 1999 to 2018 and includes quarterly data and half-year trends for 2014 to 2018[7]. Quarterly analysis of FDI flows is complicated by their high volatility. Looking at half-year values, FDI flows dropped throughout 2017 and reached their lowest level in the first half of 2018 before recovering in the second half of 2018. Overall,

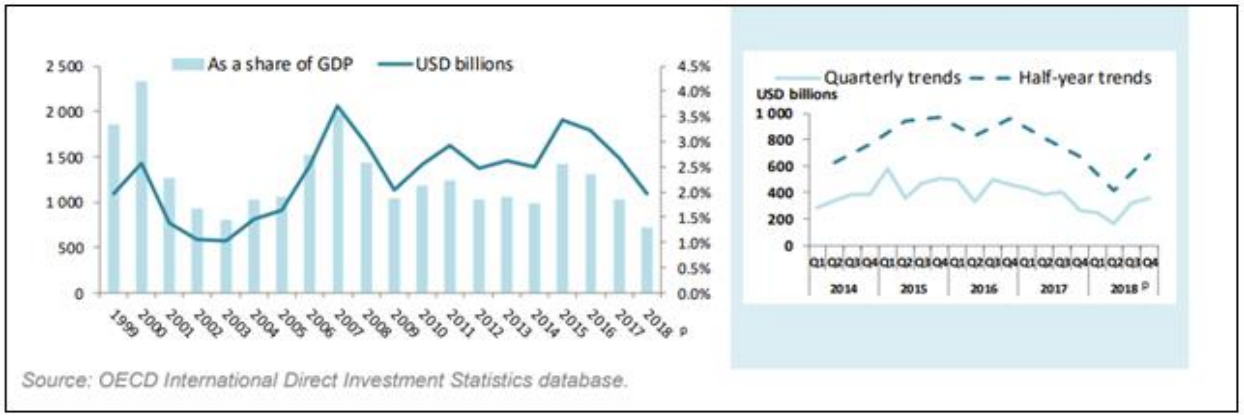
[5] Details on FDI, Productivity and Financial Development, see (Alfaro et al., 2009, Alfaro & Chauvin, 2017).

[6] By definition, inward and outward FDI worldwide should be equal, but in practice, there are statistical discrepancies between inward and outward FDI. Unless otherwise specified, references to 'global FDI flows' refer to the average of these two figures.

[7] The measure was constructed using FDI statistics on a directional basis whenever available, supplemented by measures on an asset/liability basis when needed. See Notes for tables 1 to 3 on page 12 in OECD report on FDI in figures (2019) for details. Data are as of 8 April 2019.

however, flows in 2017 and 2018 are still lower than previously.

Figure 1: Global FDI flows, 1999-2018



FDI preconditions such as minimum human capital and well-organized financial market are more in developed countries than developing ones. FDI spillovers are very high to be transmitted in skilled labor-abundant countries that absorb foreign effects and financial market development improves internal credit market in order to finance domestic investment. This is consistent with the studies conducted by Xu (2000) in US and Görg and Hijzen (2004) in UK. Used firm-level data, different methodologies were applied. Results suggest that FDI spillovers are positively associated with firm-level productivity growth for domestic firms, in particular whose levels of absorptive capacity are high, access to finance and whether or not they are located close to multinationals.

My opinion to this evidence is that, rich countries are known to have high factor productivity stems to high investment in human capital and the development in research and development (R&D). Perfect internal credit market arrangements facilitate to accumulate capital for local entrepreneurs' investment. In this sense, the presence of FDI induces competition among domestic and foreigners and stimulates MNEs to participate in new capital ownership structure that permit them having access to local market.

Nevertheless, Baimbridge and Zang (2014) examine the causal relationship between inward FDI and economic growth in OECD countries. Augmented Dickey-Fuller (ADF) was applied to test the presence of unit root; the results indicate that FDI inflows and growth have important implications such that if there is a unidirectional causality it would support the FDI-led growth hypothesis. Alternatively, if the causal link runs in the opposite direction, it would imply that economic growth may be a prerequisite for countries to attract FDI.

My point of view is that FDI- growth effect is a result of many combined factors in host economy. When FDI prerequisites meet the minimum standards to channel the effect, positive

externalities are undoubtedly materialized. Alternatively, growth of domestic economy may work as pull-factor. In growth theories, progress in technology, human capital and financial capital provide output growth. The domestic progress in these factors fascinates foreign investors to make high capital return and the dramatic increase in foreign entry also contributes to the raise in overall output.

Moreover, Timothy et al., (2008) used data from the 48 contiguous United States from 1978–97, to explore the FDI-growth effects, Least Square Dummy Variable (LSDV) method[8] was applied to estimate the parameters' values. Results suggest that FDI-growth is higher in states with high foreign presence and minimum level of human capital relative to states with a low foreign presence and low state expenditures in education.

My support to this evidence is that a positive relationship between FDI and growth at the state level is consistent with increased knowledge spillovers from foreign firms. However, economies with comparatively well-trained labor force have the capacity to take advantage of the presence of foreign technology while FDI spillovers are constrained by low skills of domestic citizens that do not allow them to absorb externalities of foreigners.

I.2.2. FDI- growth in developing countries.

FDI benefits can be transmitted through a range of channels. FDI can therefore enhance growth by allowing host countries access to advanced technologies not available domestically and improved managerial skills among domestic firms. Increased export earnings facilitate imports of capital goods that can boost economic growth albeit limited industrial bases in developing countries (Freckleton et al., 2010, Carkovic & Levine, 2002).

In international trade theories, foreign presence stimulates domestic trade earnings relative to domestic capacity to absorb foreign externalities [9] and development of domestic financial system. FDI brings advanced technology and the extent to which foreign technologies are internalized by developing countries is dependent on the absorptive capacity.

Shiva and Somwaru (2004) examine the relationship existing between FDI and country's trade in 66 developing countries. Seemingly Unrelated Regression (SUR) method was applied to estimate a three equations system. Results indicate a positive relationship between FDI and economic growth for sampled countries.

My understanding is that, In spite of absorptive capacity, developing countries with minimum human capital development could channel international trade effects and trade is also known to

[8] LSDV is OLS with time and state dummy variables.

[9] More details see Absorptive Capacities and the Impact of FDI on economic growth (Farkas 2012).

be an instrument of economic growth in a sense that it facilitates more efficient production of goods and services by shifting production to countries that have comparative advantage.

Borensztein et al., (1997), Agosin and Mayer (2000) analyzed how effectiveness is human capital and FDI on domestic investment to fuel the economic growth in developing countries. The authors used Pooled Estimations of Seemingly Unrelated Regressions (SUR) to estimate a system of equations. The results suggest that the effect of FDI on economic growth is dependent on the level of human capital available in the host economy.

My argument is that, within a country where minimum human capital holds, by watching and participating in a foreign firm's activity, domestic firms will not only learn from foreign firms, but also emerge with new ideas. This interaction between foreign and domestic firms allows growth-enhancing ideas to be produced at a faster rate than if they were produced solely by domestic firms. Subsequently, one would expect firms more closely to foreign ones in the domestic economy to experience higher rates of growth.

Alternatively, Lautier and Moreaub (2012) investigate the impact of domestic investment on FDI in developing countries. Autoregressive model and instrumentation approach were used to offset to problem of omitted variables. Results suggest a bi-directional relation between variables −FDI-investment and Investment-FDI relationship.

My understanding to these findings is that, first; FDI can be catalyst for investment in host country as it increases the number of investors. Second, a better domestic investment performance efficiently stimulates FDI because it signals to the foreigners the investment opportunity in the sector. Therefore, developing countries will benefit from measures aimed at encouraging domestic investment. The literature suggests notably that industrial policy, aimed at enhancing the profitability and the scope of domestic investments, will be effective to increase FDI inflows in the country as well.

I.2.3. FDI- growth in SSA countries.

It is noticed in the UNCTAD report (2000) that among various developing regions, the need for external financing is nowhere more pressing than in Africa, particularly in sub-Saharan Africa, where income level is too low to generate adequate domestic resources for the attainment of modest rates of investment and growth.

Literature has proposed solution to fix income issues in this part of the world. Inwards FDI is one of these solutions as it encourages domestic investment and growth by providing new markets, demand for inputs and new technology that spills over into the host economy[10]. Moreover, FDI can serve to provoke competition among firms thereby making markets

[10] See FDI in Emerging Economies - Lessons from sub-Saharan Africa (Cotton & Ramachandran, 2001).

(including financial markets) more efficient and stimulates new investment, new industry and new products, hence economic growth.

My intuition is that, Dominant technologies brought about by foreign firms often help to standardize the product, thereby making it suitable for export. An increase in export also raises the government revenues hence the improvement in per capita income in host country. Foreign technology also helps to increase factor production, reduce error rates and improve the quality of the product. These factors altogether with knowledge spillovers help to upgrade production process that meet the market requirements abroad.

Nonetheless, Africa's poor growth performance has remained far behind other continents[11] and its sub-regions also differ significantly in all context. The UNCTAD report (2007) argues that North Africa has performed relatively better than other sub regions in terms of economic performance and attracting huge amount of FDI.

FDI flows to Africa slumped to $42 billion in 2017, a 21% decline from 2016. The beginnings of a commodity price recovery, as well as advances in interregional cooperation through the signing of the African Continental Free Trade agreement, could stronger FDI flows to Africa in 2018. Despite a decline in FDI, Egypt remained a pioneer in Africa[12].

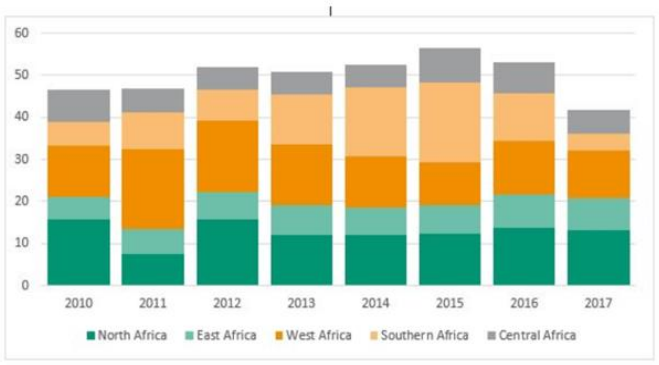
Lingering effects from the commodity bust weighed on FDI to Sub-Saharan Africa (SSA), with inflows declining by 28%, to $ 28.5 billion. FDI flows to Central Africa decreased by 22% to $5.7 billion. FDI to West Africa fell by 11% to $11.3 billion, due to Nigerian Economy remaining depressed – 21% to $3.5 billion.

Figure 3 indicates that multinational enterprises (MNEs) from developed economies (such as United States, United Kingdom and France) still hold the largest FDI stock in Africa. At the same time, developing economy investors from China and South Africa, followed by Singapore, India and Hong Kong (China) are among the top 10 investors in Africa.

[11] See "the worst economic tragedy of the 20th century" (Artadi & Sala-i-Martin 2004).

[12] See UNCTAD/PRESS/PR/2018/018.

Figure 2: African FD inflows, by sub region, 2010-2017 (Billions of dollars)



Source: UNCTAD, World Investment Report 2018.

Figure 3: The top investor economies in Africa, 2011-2016 (Billions of dollars)

Source: UNCTAD, World Investment Report 2018.
Note: Numbers presented in this figure are based on the FDI stock data of partner countries.

Despite the challenges against incoming capital flows, Most SSA countries have reduced barriers to FDI and many aggressively offered tax incentives and subsidies. The simple rationale for the increased efforts to attract FDI stems from belief that FDI promotes economic growth. For example Oyatoye et al., (2011) having done a critical analysis of the data collected for the research work in Nigeria. OLS method was applied to estimate the relation between Gross Domestic Product (GDP) and FDI. The results revealed that there is a positive relationship between foreign direct investment and gross domestic product (GDP).

My insight to this evidence is that an increase in firm-level output stimulates an increase in gross domestic product. FDI influences firm's productivity through many channels, the output increases relative to domestic financial development.

Nigeria is one of sub Saharan African countries whose output might be higher since it produces oil and other natural resources. Local firms benefit from foreign firms investment whose arbitrage is profit making than production purpose.

In his study, Njoupouognigni (2010) examines the relationship between foreign aid, foreign direct investment, employment, domestic saving and economic growth in 36 Sub-Saharan African countries using dynamic panel data methodology[13] to study a long-run impact.

He concludes that despite the effects of foreign aid and foreign direct investment on economic growth are positive, domestic saving and human capital (labor) remain the key factors that can

[13] Pesaran et al. (1999) developed two different estimators (mean group estimator (MG) and pooled mean group estimator (PMG)) when time series are large.

foster economic growth in SSA. He further argues that it's much better to focus on internal factors than external factors to boost economic growth in SSA. Indeed, labor and domestic saving are much more accessible than external factors which can be uncertain mostly when donor countries face a long recession.

My point of view is that, a lot of SSA countries are more dependent on foreign aid to support their economies. Besides, FDI is also important to support the economy by complementing the domestic finance sector. Moreover, domestic financial system development stimulates domestic saving and leads to further investment. The presence of FDI together with domestic saving builds a strong capital accumulation in favor of local investors whose financing capacity is weakened by unstable and unfair local system.

CHAPTER II. FDI and Finance

In this chapter, we explore how finance links FDI to growth effects in domestic economy. We also separately examine this link at firm as well as country level. Finally, we draw the overall conclusion.

II.1. Financial market and FDI - growth link

One of the most direct ways through which FDI can contribute to domestic economic development is by increasing the amount of capital available in the domestic economy[14]. Alfaro et al., (2010) investigate the role of local financial markets driving the FDI-growth benefits, Grossman and Helpman's model (1990, 1991) was employed to explore the channel through which the trade regime might affect growth in the long run. Results are threefold. First, holding the extent of foreign presence constant, financially well-developed economies experience growth rates that are almost twice those of economies with poor financial markets.

My opinion is that, the development of capital markets is "necessary and sufficient" to foster the "adoption of best practice technologies and learning by doing." Limited access to credit markets restricts entrepreneurial development. However, for host countries with well-developed financial markets, the easier it is for credit constrained entrepreneurs to start their own firms. The access to finance allows the domestic firms to translate their inputs into output or expand the production capacity of factors.

Second, increase in the share of FDI or the relative productivity of the foreign firm leads to higher additional growth in financially developed economies than under-developed ones.

My perception is that the entry of foreign firms (FDI) induces overall output growth. It may not only provide direct capital financing but create positive externalities via the adoption of foreign technology and know-how. However, the capital accumulation stimulates a creation of new

[14] See details on FDI, Finance, and Economic Development (Alfaro & Chauvin, 2017).

industries, upgrades production processes and organization structure. Hence an increase in firm's productivity gets realized.

Third, well-developed financial markets induce host country to benefit from the backward linkages between the foreign and domestic firms with positive spillovers to the rest of the economy.

My position to this is that with access to finance, local entrepreneurs get enough capacity to supply intermediate inputs to multinational companies. The increase in the number of varieties of intermediate inputs leads to positive spillovers to the intermediary processes that constitute the final good sector. As a result, financial market development allows backward linkages between foreign and domestic firms to turn into FDI spillovers. Moreover, huge available inputs do not only benefits the foreign firms but raises the total factor productivity of the domestic firms in the final goods sector, thus creating a horizontal spillover as an indirect result of the backward linkage.

Baimbridge and Zang (2014), Kose et al., (2009), Alfaro et al., (2004), Aguiar and Gopinath (2014) and Goldberg (2007) investigate the financial Sector -FDI linkage in host countries. Different methodologies are applied. They conclude that foreign presence stimulates increase in total factor productivity (TFP) relative to the development of financial system of host economy. And most of capital inflows induce structural ownership adjustment integrating the local capital owners.

My view is that, for local financial sector and investor protections, in particular, weak financial institutions induce local funders to insist on foreign equity participation in order to ensure sufficient monitoring and value maximization. In contrast with deeper credit markets (as measured by the private credit to GDP ratio) and higher investor protections, firms are more likely to use arms-length relationships than ownership participation. Nevertheless, integrating local entrepreneurs into adjusted ownership system reveals a caveat for improvement in local financial market. Ownership participation in form of merger and/or acquisition allows local capital owners to have had open doors to international negotiations and full exploitation of local resources, the key for increase in firm's productivity.

Domestic currency market also channels FDI effects on the economy. For example Desai et al., (2007) investigate how local and foreign firms respond to the currency crises in terms of output differentiation. Differences in the level of leverage across local firms are tested to identify if the constrained local firms are those that invest and grow the least relative to affiliates and also test for multinational parent's internal capital markets to see if more resources are being allocated to affiliates in countries experiencing severe depreciations.

Results indicate that local firms with the most leverage and with the shortest term debt reduce investment the most. The examination of the internal capital markets of multinationals indicates that multinational parents provide additional financing in response to sharp depreciations. However, multinational firms overcome the negative consequences of large depreciations by avoiding the financial constraints that handicap local firms.

On my view, local firm weak response to currency crises incentivizes foreign firms on domestic financial market. Domestic currency depreciation improves the competitiveness of both local and multinational firms such that multinational affiliates are able to draw new capital from their parents and circumvent financial constraints, in this case MNEs can mitigate output contractions during currency crises and expand activity since they are more reliant on export.

II.2. Financial market and effects of FDI on Firms' output on country's level

Despite the (FDI) effects, multinational production has consequently become a critical phenomenon difficult to assess, they prevail in ambiguous results on output at the micro- as well as macro-levels (carkovic & Levine, 2002).

Examining the relevance of financial markets to aggregate gains from FDI, Alfaro et al., (2009) and Lensink and Hermes (2003) follow the voluminous growth regression as proposed by Barro (1991) to study the extent to which FDI can have impact on aggregate output. Results show that as capital is accumulated firms get additional means to train employees and access to the use of high technology in production process; this induces an increase in total factor productivity and consequently expands firms' output.

On my behalf, through employee training new skills are provided adapting to changes and new work conditions such as skills in computerization and product design. The presence of advance technology stimulates firms transforming inputs at exhaustive level, produce more units at very short time and low cost and allow the quality of product to be competitive. Both the capacity building and technological advance play a key role in increase of factor productivity and firms' output in general.

To elucidate the mechanisms underlying this aggregate effect of FDI on productivity via financial market, Prasad et al., (2007) employed generalized method of moments (GMM) in analysis of macro-data to examine the sources of productivity differentials across developed and non-industrialized countries. The results unveil that it is possible that, when facing improved domestic investment opportunities, poor countries do not have corporations or financial systems that can easily use arm's-length foreign capital to ramp investment up substantially.

My understanding support this view, that the risk-adjusted returns to capital investment may not be as high in poor countries as their low capital-labor ratios suggest, either because they have

weak institutions, or because physical capital is costly in poor countries, or because poor country governments have repeatedly defaulted on their debt finance. This indebtedness has reduced the people's disposable income since their government decides for tax hike to gain additional revenue to pay for high interest and default risks. FDI stimulates capital formation narrowing local firm's financial constraints, it allows local firms to survive and compete against the foreign ones.

Having analyzed the effects of local financial development on MNEs' activities Bilir et al., (2019) developed a stylized three-country model to show how host-country financial development can influence MNEs' activities through competition and financing effect. Results show that financially advanced countries attract more MNEs subsidiaries.

My argument is that less financially constrained local firms increase the number of competitors and reduce sales revenues of surviving firms. However, multinational affiliates those tend to be less financially constrained gain from parent support to opportunistically minimize their overall cost of capital; they nevertheless face frictions that prevent them from perfectly arbitraging differences in cost of capital across countries, they reduce sales on domestic market and rise export to third countries. This raise in export sales linked to the backward linkages with domestic inputs suppliers to the MNEs.

II.3. Financial market and effects of FDI on local firm-level productivity through spillovers

Although most FDI by its very nature relies on capital from abroad, it is important to recognize that the spillovers to domestic firms might crucially depend on the extent of the development of domestic financial markets.

For example, Alfaro and Charlton (2007) examining growth and the quality of FDI employed two least square methods and propensity score matching approach to ensure control group validity. Results show that FDI-growth in value added effect is strongly positive for industries which have skill requirements and more reliant on external finance.

My opinion is that the quality of FDI implies the effect of a unit of FDI on economic growth, which may be materialized through a range of host-country's characteristics to absorb foreign competition. Explicitly, weak domestic entrepreneurs prefer to rely on external finance in form of ownership participation and/or enterprises fusion in order to validate and mobilize their capital. This induces the capital accumulation and hiring highly skilled labor forces that are in most cases costly. High skilled labor together with enough capital to diversify factors, cause an increase in total factor productivity (TFP), hence output growth.

With reference to Alfaro et al., (2009) there are different ways in which financial markets matter. With well-functioning financial markets indeed, to take advantage of the new knowledge, local

firms need to alter everyday activities and, more generally, reorganize their structure, buy new machines, and hire new managers and skilled labor. Furthermore, the lack of organized financial markets can constrain potential entrepreneurs restricting their access to domestic financing.

Furthermore, Smarzynska (2002) investigates whether FDI increases the Productivity of Domestic Firms in search of Spillovers through Backward Linkages in Lithuania and concludes that FDI induces productivity spillovers through backward linkages.

My comprehension is that with presence of big foreign companies, their technologies used seem to be on average better than the ones domestic plants operate. The arrival of foreign plants to an industry is often associated with increases in productivity of local firms via inputs supplies. Most of local firms have access to domestic natural resources, with low financial capability to finance their access to advanced production techniques; local firms treat inputs at basic stage to supply them as inputs to the big foreign firms whose production technology is modern. Increases in inputs demand by big firms stimulate small firms supply.

More researches focus on productivity growth from multinational companies, while spillovers effects differ across firms and sectors. In this sense, Keller and Yeaple (2009) examine heterogeneity within industries and across industries in the strength of spillovers. They follow Olley-Pakes (1996) methodology[15] to estimate plant-level productivity. The results indicate much more FDI spillovers in high-technology industries whereas they are largely absent in low-tech sectors and have a bigger impact within industries on the productivity growth of those firms most distant from the productivity frontier.

My argument is that firm's fixed effect also has an important effect on productivity growth. Holding foreign presence constant, firm's factors of production also matter. Access to local natural resources, high domestic demand and access to domestic collective markets which do not require high product quality can altogether push firms increasing their output.

[15] Olley and Pakes (1996) analyzed dynamics of plant-level productivity using plant-level data in telecommunication industry

Conclusion

This study exploits a comprehensive set of literature to scrutinize how finance links FDI to growth on firm-level as well as country level. At firm level we find FDI to be associated with higher growth in value added. In well-organized financial market, local firms with less credit frictions compete with MNEs in both product quality and quantity while others through backward linkage grow and expand their output by processing inputs at basic stage and supply them to foreigners. Moreover, at country level, well financial market arrangements permit foreign firms to operate at low transaction costs. An increasing number of foreign companies entering the local market provide higher aggregate affiliate sales to the local market as well as to abroad (exports). Undoubtedly, countries with weak financial institutions impede the FDI-growth benefits.

FDI has costs and benefits, for developing countries to take advantages of FDI have to consider the cost before advocate to foreigners. More generally, such policies for SSA have to guarantee a set of prerequisites to absorb FDI externalities. FDI incentives would be manageable to mitigate the harmful amplification of negative externalities (tax erosion) caused by foreign presence. FDI benefits analysis is in scope of our study. Effects of slump in government revenue due to incentives to attract inward FDI are encouraged for further research.

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